

Notice of Allowability

Application No.

10/602,223

Examiner

Tammy T. Nguyen

Applicant(s)

YAMAGAMI, KENJI

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to December 19, 2005.
2. ☒ The allowed claim(s) is/are 1,3,4,7,12 and 24-26.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

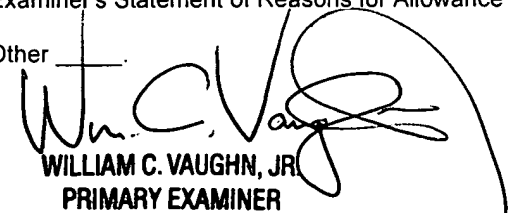
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☒ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |


WILLIAM C. VAUGHN, JR.
PRIMARY EXAMINER



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENT
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20590
www.uspto.gov

Reasons for allowance

1. The following is an examiner's statement of reasons for allowance:
2. Claims 1 and 2 are allowed in response to applicant's persuasive arguments.
3. The following is an examiner's statement of reasons for allowance: the closet prior arts of record (James Bergsten, U.S. Patent No. 6,282,610) and (LeCrone et al., U.P. Patent No. 6,631,477) do not teach or suggest storages system receiving data containing a journal to mirror the first data volume in the third data volume, wherein the journal comprises the write data and sequence number indicating write ordering to the first data volume, and wherein the write request from the first host to the first storage system completes after the first data is received by the second storage system; wherein the write request from the first host to the first storage completes independently of the second data being received by the third storage system; and wherein the write data to be stored on the third data volume is generated according to the write order provided by sequence number of the journal that is contained in the second data, in combine with all the elements of each independent claim as argue by applicant (see page.8 [0038], pag.9 [0042-0044], page.11 [0049-0051], page.12 [0053], page.15, [0066], page.16 [0069 and

page.17[0072-0073]of Applicant's enabling portion of the specification).

Bergsten only teaches first, second, third and to n storages system which is including storage controller and data volume in each of storage system, and each storage controller configure to receive a request form each first host and store write data associate with the request. Beside, LeCrone only teaches the back up system, which is receiving first data containing the write data to mirror the first volume in second data volume. However, the prior art of record fails to teach or suggest individually or in combination a remote copy system. Applicant's argument have considered persuasive, in light of the claim limitation as well as the enabling portion of the specification

4. All dependent claims further limit the independent claim. Therefore, they are also allowed.
5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

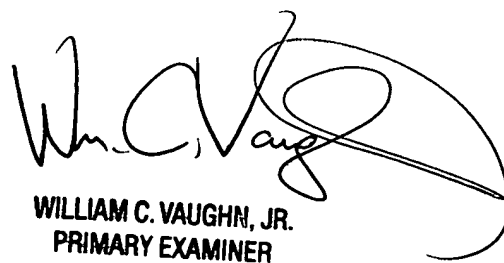
6. Any inquiries concerning this communication or earlier communications from the examiner should be directed to **Tammy T. Nguyen** who may be reached via telephone at (571) 272-3929. The examiner can normally be reached Monday through Friday between 8:00 a.m. and 5:00 p.m. eastern standard time.

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If you need to send the Examiner, a facsimile transmission regarding this instant application, please send it to (703) 872-9306. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, **VAUGHN JR WILLIAM**, may be reached at (571) 272-3922.

TTN

March 1, 2006



WILLIAM C. VAUGHN, JR.
PRIMARY EXAMINER